New insights on the chiral magnetic effect from small systems at CMS\textsuperscript{1} WEI LI, Rice Univ, CMS COLLABORATION — Studies of charge-dependent azimuthal correlations for same- and opposite-sign particle pairs are presented in PbPb collisions at 5 TeV and pPb collisions at 5 and 8.16 TeV, with the CMS experiment at the LHC. The azimuthal correlations are evaluated with respect to the second- and also higher-order event planes. By employing an event-shape engineering technique, the dependence of correlations on azimuthal anisotropy flow is investigated. New results presented by comparing large and small systems provide new insights to the origin of observed charge-dependent azimuthal correlations, and have important implications to the search for the chiral magnetic effect in heavy ion collisions.

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